Integrity Management Segment Identification and Completeness Check

Draft Inspection Questions

Name of Operator: _____

Headquarters Address:
Company Official:
Phone Number:
Fax Number:
Operator ID:
Activity ID:

Persons Interviewed	Titles	Phone No.
Primary Contact:		

OPS Representatives: _____ **Dates:** _____

Has the operator submitted all of its pipeline system location data to NPMS? Yes ____ No____
If not, what data is missing and when can OPS expect to receive it?

(If system maps are not on NPMS, obtain copies of maps for Region files.)

System Description(s):

The following format is used for recording the operator responses to many of the basic questions in the segment identification and completeness check inspection. An explanation of the each of these entries follows the table.

Satisfactory		**Significant Progress, but Improvement Needed**		**Unsatisfactory, or No Progress**	
Comments:					
Reference Documents:					
Noteworthy Practices:					

Satisfactory: The operator's response and evidence reviewed was deemed to be satisfactory. It should be noted that an Integrity Management Program is one of continuous improvement. This means operators should be critically evaluating their own program, looking for better methods, factoring in operating experience and lessons learned, and taking appropriate advantage of new technology. Therefore, in some areas, what may be satisfactory at this initial inspection, may not necessarily be satisfactory several years later during subsequent inspections.

Significant Progress, but Needs Improvement: Based on the evidence reviewed and the discussions with the operator, adequate progress has been made, however there are some areas where improvement is needed. These improvements could be in areas where the operator is making good progress toward completion, but just needs additional time to fully implement a particular process or activity (e.g., fully populating a GIS system). These improvements could also be areas where there are minor, non-safety significant gaps in the operator's process or activity that OPS believes should be addressed. These areas for improvement should be documented in the Comments field. Typically, this evaluation would not result in any formal compliance action (e.g., NOA, NOPV).

Unsatisfactory, or No Progress: Based on the evidence reviewed and the discussions with the operator, there is no evidence of progress, or the operator's performance is well below expectations. This evaluation could result in a formal compliance action depending on the seriousness of the condition.

Comments: This field is used to record information important to support the overall assessment of progress, and to assist future inspections in understanding key characteristics or features of an operator's approach. It should be used to record verbal feedback to the operator about areas for expected improvement. Those areas where improvements are planned or expected should be described including the date by which these improvements are expected to be completed.

Reference Documents: This field is used to identify what documents, manuals, procedures, records, etc., were examined. Revision numbers and dates are important to record on documents that are expected to be periodically revised (e.g., Baseline Assessment Plan).

Noteworthy Practices: This field is used to record any practices which the operator is using that may be particularly unique or superior to the industry norm. In making these notations, inspectors should take care not to record anything the operator believes to be business sensitive or proprietary without their permission.

Integrity Management Segment Identification and Completeness Check

Draft Inspection Questions

The material below contains a draft set of questions to be used during the initial Segment Identification and Completeness Check Inspections. These questions are preliminary and will be revised to reflect OPS experience in pilot testing and internal review comments. This inspection form provides only the basic question set to indicate the general lines of inquiry. Detailed questions and lines of inquiry should be expected during the inspection.

These questions are organized by the two primary purposes of this inspection: 1) confirm the operator has identified segments on its pipeline system(s) where a failure could impact high consequence areas; and 2) perform a completeness check on the operator's Baseline Assessment Plan(s) and its Integrity Management Program Framework.

Quotations from the Code are shown in *italics*.

Segment Identification Questions

During this portion of the inspection, OPS will perform a review to determine if the operator has complied with the requirement to identify pipeline segments that could affect HCAs [195.452 (b) (1) (i)]. This review will first look at the operator's process for identifying these segments as required in 195.452 (f), and then examine records for selected HCAs to provide assurance that this process has been followed.

Existing Code Language:

§452 (f) An operator must include, at minimum, each of the following elements in its written integrity management program:
(1) A process for identifying which pipeline segments could affect a high consequence area.

NOTE: If an operator elects to declare that its entire pipeline system could affect an HCA for purposes of developing a Baseline Assessment Plan, that does not relieve it from the responsibility to understand how failures at different locations along the system might impact an HCA. This information is important to prioritize segments for establishing assessment schedules and is necessary in conducting the risk analysis required by the rule. Thus, in its Integrity Management Program Framework, an operator must still describe its current process for determining what impacts a pipeline failure might have on an HCA, and any improvements planned for that process.

Inspection Questions:

1. Has the operator documented the process used to identify segments that could affect HCAs in company procedures, process guidance, or another form that provides confidence the process will be consistently and appropriately implemented throughout its pipeline system(s)?

Satisfactory		Significant Progress, but Needs Improvement		Unsatisfactory, or No Progress	
Comments:					
Reference Documents:					
Noteworthy Practices:					

2. Does the process to identify segments that could affect HCAs include steps to identify the locations of HCAs using the NPMS and other information sources as necessary?

Satisfactory		Significant Progress, but Needs Improvement		Unsatisfactory, or No Progress	
Comments:					
Reference Documents:					
Noteworthy Practices:					

3. Does the process to identify segments that could affect HCAs include steps to estimate the amount of commodity that could be released from a leak/rupture in a specific segment?

- Does the process consider the factors necessary to determine the spill volume and release rate? (e.g., flow rates, pressures, hydraulic profile, etc.)
- Does the process consider the equipment and operator actions that might minimize the release volume (e.g., placement of isolation valves, and the expected time to recognize a failure has occurred and subsequently isolate the failure)?
- Does the process consider a range of possible release volumes and flow rates?
- Does the process consider locations where slow leaks (perhaps below the leak detection threshold) might be problematic?

Satisfactory		Significant Progress, but Needs Improvement		Unsatisfactory, or No Progress	
Comments:					
Reference Documents:					
Noteworthy Practices:					

4. Does the process to identify segments that could affect HCAs include steps to define the possible flow paths between the pipeline and the HCA ? For HVLs and CO_2 lines, has air dispersion been considered?

Satisfactory		Significant Progress, but Needs Improvement		Unsatisfactory, or No Progress	
Comments:					
Reference Documents:					
Noteworthy Practices:					

5. Does the process to identify segments that could affect HCAs consider identifying physical barriers along these flow paths and emergency response actions? Does the process produce an estimate of the amount of commodity that could reach and impact the HCA?

Satisfactory		Significant Progress, but Needs Improvement		Unsatisfactory, or No Progress	
Comments:					
Reference Documents:					
Noteworthy Practices:					

6. Does the process to identify segments that could affect HCAs include provisions to periodically re-examine the segment boundaries? Does this process include a review of the NPMS and other information sources to identify new HCAs, or determine if the boundaries of existing HCAs have changed?

Satisfactory		**Significant Progress, but Needs Improvement**		**Unsatisfactory, or No Progress**	
Comments:					
Reference Documents:					
Noteworthy Practices:					

7. Does the operator's Integrity Management Framework identify any specific improvements for the segment identification process and a schedule for when these will be completed? If a formally documented segment identification process is not available, does the Framework include a plan for how and when such a process will be developed?

Yes		**Specific Improvements:**
No		

Existing Code Language:

§452 (b) What must an operator do?
(1)no later than March 31, 2002, an operator must develop a written integrity management program that addresses the risks on each pipeline segment that could affect a high consequence area. An operator must include in the program:
(i) An identification of all pipeline segments that could affect a high consequence area. A pipeline segment in a high consequence area is presumed to affect that area unless the operator's risk assessment effectively demonstrates otherwise. (See Appendix C of this part for guidance on identifying segments.) An operator must complete this identification no later than December 31, 2001.

Inspection Questions:

NOTE: This portion of the inspection looks at an operator's implementation of its segment identification process. The initial questions apply broadly to the entire process, while the latter questions are used in examining specific segments.

8. Did the operator use the HCA maps from the NPMS to identify populated areas, commercially navigable waterways, and USAs for all states/regions in which it operates?

Satisfactory		**Significant Progress, but Needs Improvement**		**Unsatisfactory, or No Progress**	
Comments:					
Reference Documents:					
Noteworthy Practices:					

9. If there are any states for which USA maps are not available on NPMS, did the operator identify environmentally sensitive areas and drinking water resources in those states, and the pipeline segments that could impact those areas? Does the approach used to identify these environmental resources appear to be appropriate given the resources at the operator's disposal? Does the operator have documented plans to review and, if necessary, revise its segment definition in those states once the USAs are posted on NPMS?

Satisfactory		**Significant Progress, but Needs Improvement**		**Unsatisfactory, or No Progress**	
Comments:					
Reference Documents:					
Noteworthy Practices:					

10. Did the operator determine all locations where its pipeline system is physically located within an HCA? (i.e. Did the operator correlate its complete pipeline system(s) maps with the HCA maps, and identify all areas where the pipeline system intersects an HCA?)

Satisfactory		**Significant Progress, but Needs Improvement**		**Unsatisfactory, or No Progress**	
Comments:					
Reference Documents:					
Noteworthy Practices:					

11. Has the operator identified any segments physically located within an HCA that will not affect that HCA in the event of a failure? Has the operator provided the basis for that contention consistent with its documented process?

Satisfactory		**Significant Progress, but Needs Improvement**		**Unsatisfactory, or No Progress**	
Comments:					
Reference Documents:					
Noteworthy Practices:					

NOTE: To confirm that the operator has appropriately implemented its process for identifying segments that can impact HCAs, several evaluations for specific HCAs will be examined. The following two questions would be addressed when reviewing these evaluations.

12. Has the operator performed and documented an analysis to determine what portions of its system that are outside the HCA boundaries could affect an HCA in the event of a spill?

Satisfactory		**Significant Progress, but Needs Improvement**		**Unsatisfactory, or No Progress**	
Comments:					
Reference Documents:					
Noteworthy Practices:					

13. Is the operator's analysis to determine what portions of its system are outside the HCA boundaries but could affect an HCA, consistent with its documented process?

Satisfactory		**Significant Progress, but Needs Improvement**		**Unsatisfactory, or No Progress**	
Comments:					
Reference Documents:					
Noteworthy Practices:					

NOTE: The following summary evaluation synthesizes the results of the previous global and segment-specific questions.

Summary Evaluation of the Operator's Implementation of its Process to Identify Segments that Could Affect HCAs.

14. Is there evidence that the operator is implementing the process as described? Does the operator have internal review or quality assurance mechanisms in place that evaluate the effectiveness of the segment identification process? Given the above, do the operator's process documentation, records, management practices, and applied resources provide reasonable confidence that the segment identification process has been (and will be) consistently and appropriately implemented?

Satisfactory		**Significant Progress, but Needs Improvement**		**Unsatisfactory, or No Progress**	
Comments:					
Reference Documents:					
Noteworthy Practices:					

NOTE: Feedback to the operator on their segment identification process should be communicated in the exit interview and recorded in the "Comments" field above.

15. How does the operator intend to use the information produced by the segment identification process in its risk analysis and decision making processes? Are there other areas where this information is being used? (e.g., identify improvements to spill response plans)

Comments:
Reference Documents:
Noteworthy Practices:

Integrity Management Program Framework and Baseline Assessment Plan

Draft Completeness Check Questions

The purpose of this portion of the inspection is to determine if all of the required elements of the Integrity Management Framework and the Baseline Assessment Plan are being addressed. This provides assurance that any major gaps in an operator's program are identified up front so they can be appropriately remedied in a timely manner. The completeness check also provides OPS insights into the operator's program that will be used in scheduling companies and preparing for the more comprehensive program reviews to follow.

Existing Code Language:

§452 (b) What must an operator do? (1) No later than March 31, 2002, an operator must develop a written integrity management program that addresses the risks on each pipeline segment that could affect a high consequence area. An operator must include in the program: .....

(iii) A framework addressing each element of the integrity management program, including continual integrity assessment and evaluation (see paragraphs (f) and (j) of this section). The framework must initially indicate how decisions will be made to implement each element.

1. Does the operator have a written Integrity Management Program Framework?

Yes		**No**	
Comments:			
Reference Documents:			
Noteworthy Practices:			

NOTE: If the answer to the above question is "no," the documents where the specific processes required by 195.452 (f) are described should be noted in the responses to each of the remaining questions below. Also, if the operator has multiple integrity management programs or frameworks that cover specific pipeline systems or groups of systems, this information should be recorded in the Comments field above.

The remaining questions for the Completeness Check portion of the inspection are structured in the same manner as the requirements are listed in 195.452 (f).

Existing Code Language:

§452 (f) What are the elements of an integrity management program? An integrity management program begins with the initial framework. ..... An operator must include, at minimum, each of the following elements in its written integrity management program:

(1) A process for identifying which pipeline segments could affect a high consequence area;

NOTE: This is already addressed by the segment identification portion of this inspection.

Existing Code Language:

§452 (f) (2) A baseline assessment plan meeting the requirements of paragraph (c) of this section.

NOTE: Questions 2 - 9 evaluate the completeness of the operator's Baseline Assessment Plan(s).

2. Does the operator have a documented Baseline Assessment Plan or Plans for all pipeline systems having segments that can impact HCAs? If the operator has Plans for individual pipeline systems or groups of systems, list the specific Plans and the assets covered in the "Comments" field below.

Yes		**No**	
Comments:			
Reference Documents:			
Noteworthy Practices:			

The following aspects of the Baseline Assessment Plan(s) should be examined in the Completeness Check.

Existing Code Language:

§452 (c) What must be in the baseline assessment plan? (1) An operator must include each of the following elements in its written baseline assessment plan:

(i) The methods selected to assess the integrity of line pipe.

3. Has the operator documented the integrity assessment method or methods for each segment?

Yes		**No**	
Comments:			
Reference Documents:			
Noteworthy Practices:			

Existing Code Language:

§452 (c) (1) (ii) A schedule for completing the integrity assessment;

4. Has the operator prepared a schedule indicating when baseline integrity assessments for each segment that can affect an HCA will be (or have been) performed?

Yes		No	
Comments:			
Reference Documents:			
Noteworthy Practices:			

NOTE: With respect to the Baseline Assessment Plan schedule, there are two other requirements that should be confirmed in the completeness check.

Existing Code Language:

§452 (d) When must the baseline assessment be completed? (1) Time period. An operator must establish a baseline assessment schedule to determine the priority for assessing the pipeline segments. An operator must complete the baseline assessment by March 31, 2008. An operator must assess at least 50% of the line pipe subject to the requirements of this section, beginning with the highest risk pipe, by September 30, 2004.

5. Does the Baseline Assessment Plan schedule show that all segments that can affect HCAs will be assessed by March 31, 2008? Does the schedule show that at least 50% of the mileage will be assessed by September 30, 2004?

Yes		No	
Comments:			
Reference Documents:			

Existing Code Language:

§452 (d) (2) Prior assessment. To satisfy the requirements of paragraph (c) (1) (i) of this section, an operator may use an integrity assessment conducted after January 1, 1996, if the integrity assessment method meets the requirements of this section.

6. Does the Baseline Assessment Plan include any assessments performed before January 1, 1996?.

Yes		No	
Comments:			
Reference Documents:			

7. Does the Baseline Assessment Plan include any assessments performed between January 1, 1996 and January 1, 2002? [NOTE: These should be identified to assure the proper interval for re-assessment is established.]

Yes		No	
Comments:			
Reference Documents:			

Existing Code Language:

§452 (c) (1) (iii) An explanation of the assessment methods selected and evaluation of risk factors considered in establishing the assessment schedule.

8. Does the Baseline Assessment Plan include an explanation of the technical basis for the assessment method selections for segments that can affect an HCA?

Yes		No	
Comments:			
Reference Documents:			
Noteworthy Practices:			

9. Does the Baseline Assessment Plan describe the risk factors considered and the risk analysis performed in prioritizing segments for the assessment schedule? Are the segment priorities evident in the Plan?

Yes		No	
Comments:			
Reference Documents:			
Noteworthy Practices:			

NOTE: The remaining questions evaluate the completeness of the company's Integrity Management Program and Framework with respect to the remaining required program elements.

Existing Code Language:

§452 (f) (3) An analysis that integrates all available information about the integrity of the entire pipeline and the consequences of failure (see paragraph (g) of this section);

10. Does the operator have a documented process that integrates integrity assessment results with other information that is important to understanding the likelihood and consequences of pipeline failures (e.g., a risk analysis process)?

Yes		**No**	
Comments:			
Reference Documents:			
Noteworthy Practices:			

11. Does the Framework identify any specific improvements for this process and a schedule for when these will be completed? If a formally documented risk analysis process is not available, does the Framework include a plan and schedule for how and when such a process will be developed?

Yes		**Specific Improvements:**
No		

Existing Code Language:

§452 (f) (4) Criteria for repair actions to address integrity issues raised by the assessment methods and information analysis (see paragraph (h) of this section);

12. Does the operator have documented repair/examination criteria that address the timing for repair/examination following anomaly or defect discovery, as well as the acceptable repair/remediation methods? Are the repair provisions consistent with 195.452 (h)?

Yes		No	
Comments:			
Reference Documents:			
Noteworthy Practices:			

13. Does the Framework identify any specific improvements for the repair/examination criteria and a schedule by when these will be completed? If a formally documented anomaly repair/examination criteria are not available, does the Framework include a plan for how and when they will be developed?

Yes		**Specific Improvements:**
No		

Existing Code Language:

§452 (f) (5) A continual process of assessment and evaluation to maintain a pipeline's integrity (see paragraph (j) of this section);

14. Does the operator have a documented process for determining the appropriate integrity assessment interval for pipeline segments that can affect HCAs? Does the operator have a documented process for determining the appropriate integrity assessment method(s) for subsequent assessments?

Yes		No	
Comments:			
Reference Documents:			
Noteworthy Practices:			

15. Does the Framework identify any specific improvements for this process and a schedule for when these will be completed? If a formally documented process for continual assessment and evaluation is not available, does the Framework include a plan for how and when such a process will be developed?

Yes		**Specific Improvements:**
No		

Existing Code Language:

§452 (f) (6) Identification of preventive and mitigative measures to protect the high consequence area (see paragraph (i) of this section);

16. Does the operator have a documented process for the identification, evaluation, and implementation of preventive and mitigative measures to protect HCAs?

Yes		No	
Comments:			
Reference Documents:			
Noteworthy Practices:			

17. Does the Framework identify any specific improvements for this process and a schedule for when these will be completed? If a formally documented process for identifying, evaluating, and implementing preventive and mitigative measures is not available, does the Framework include a plan for how and when such a process will be developed?

Yes		**Specific Improvements:**
No		

Existing Code Language:

§452 (f) (7) Methods to measure the program's effectiveness (see paragraph (k) of this section);

18. Does the operator have a documented process to monitor the performance and measure the effectiveness of its integrity management program?

Yes		No	
Comments:			
Reference Documents:			
Noteworthy Practices:			

19. Does the Framework identify any specific improvements for its performance evaluation process and a schedule for when these will be completed? If a formally documented performance evaluation process is not available, does the Framework include a plan for how and when such a process will be developed?

Yes		**Specific Improvements:**
No		

Existing Code Language:

§452 (f) (8) A process for review of integrity assessment results and information analysis by a person qualified to evaluate the results and information (see paragraph (h) (2) of this section);

20. Does the operator have a documented process for reviewing the results of integrity assessments that includes the integration of data from other sources to fully understand assessment results and make appropriate excavation and repair/mitigation decisions?

Yes		**No**	
Comments:			
Reference Documents:			
Noteworthy Practices:			

21. Does the Framework identify any specific improvements for this process and a schedule for when these will be completed? If a formally documented integrity assessment results review process is not available, does the Framework include a schedule for when this will be developed?

Yes		**Specific Improvements:**
No		

22. Do the operator processes for reviewing integrity assessments and analyzing integrity/risk information establish experience, training, or other qualifications for the individuals performing this work?

Yes		**No**	
Comments:			
Reference Documents:			
Noteworthy Practices:			

23. Does the Framework include any plans for improving personnel qualifications or training and a schedule for when these will be completed? If formal experience, training, or other qualifications are not established, does the Framework include a plan for how these will be developed?

Yes		**Specific Improvements:**
No		